



Neutral Citation Number: [2020] EWHC 1954 (QB)

Case No: QB-2019-002626

IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 21 July 2020

Before :

THE HON. MRS JUSTICE THORNTON DBE

Between :

Mr Anthony Smith
- and -
Secretary of State for Transport

Claimant

Defendant

Mr Jonathan Butters (instructed by **BTMK**) for the **Claimant**
Mr Andrew McLaughlin (instructed by **DWF**) for the **Defendant**

Hearing dates: 16 - 17 June 2020

Approved Judgment

The Hon. Mrs Justice Thornton :

Introduction

1. The Claimant, Mr Anthony Smith, is a 77-year-old man with pulmonary fibrosis, which has reduced his life expectancy by 3 years. From 1956-1963, he was employed by British Rail to repair train carriages. His case is that he was regularly exposed to asbestos dust during the course of his employment, as a consequence of which he has asbestosis, a diffuse interstitial fibrosis of the lung caused by asbestos exposure. The Defendant, the Secretary of State for Transport, who has taken over the liabilities of British Rail for historic industrial injury claims, considers he has idiopathic pulmonary fibrosis, for which the Defendant cannot be held responsible.
2. The medical experts are agreed that Mr Smith can be considered to have asbestosis if his cumulative exposure to asbestos amounted to 25 fibres per millilitre per year ('fibre years').
3. By the end of the trial the key issues for the Court were:
 - a. how the Court should treat the oral evidence of Mr Smith in light of his communication difficulties following a stroke in 2001;
 - b. how often Mr Smith is likely to have been exposed to asbestos dust falling from the ceiling panels during repair work in the carriages; and
 - c. whether he was exposed to 25 fibre years of asbestos dust during his career with British Rail.
4. Quantum is agreed.
5. In this judgment I refer to the Claimant by name. I refer to the Secretary of State for Transport as 'the Defendant', simply to use fewer words on each mention.

Background

6. By the end of the trial the following facts and matters of expert opinion were agreed.
7. Mr Smith joined British Rail as an apprentice in 1956 when he was 15 years old. He started doing repair work in the train carriages in 1957 when he turned 16. He was based at a depot in Wandsworth, South London, until he was 21 before moving to a depot at Clapham Junction. Both were local depots. He left sometime in 1963 having worked for British Rail for a total of six years.
8. During his employment he worked seven days a week. He worked in a gang of 4 to 5 men. His job included the repair of seats, tables, doors and windows in the carriages. He tended to work in the carriages for 4-5 days a week, which is where he would have been exposed to any asbestos dust. He spent 1-2 days a week in British Rail workshops whilst Sundays tended to be spent outside repairing or replacing carriage doors and/or handles. It is not said that he was exposed to asbestos dust in the workshops or on Sundays.
9. From British Rail documentation it is apparent that a considerable number of the train coaches built between 1951 and 1967 used blue asbestos for body insulation. Accordingly, it is common ground that it is likely that some carriages, at least, that Mr Smith worked on would have been sprayed with

blue asbestos, known as ‘limpet’ asbestos and containing crocidolite, a particularly concentrated form of asbestos.

10. Mr Smith did not do any repair work himself that would have disturbed the asbestos. Any exposure would have been by way of the removal of ceiling panels by his colleagues during which asbestos dust was released. A key issue between the parties is the extent to which the ceiling panels were removed and the likely quantities of asbestos released.
11. The significance of cumulative exposure to asbestos of 25 fibre years derives from criteria formulated at an international meeting of experts in asbestos and cancer convened in Helsinki in January 1997. The criteria are referred to as the ‘Helsinki criteria’:

“Cumulative exposure on a probability basis should thus be considered the main criterion for the attribution of a substantial contribution by asbestos to lung cancer risk – relative risk is roughly doubled for cohorts exposed to asbestos fibres at a cumulative exposure of 25 fibre years.”

(Asbestos, asbestosis and cancer: the Helsinki criteria for diagnosis and attribution Consensus Report Scand J Work Environ Health 1997:23: 311-6)

12. The threshold is necessary because:

“Asbestosis is defined as diffuse interstitial fibrosis of the lung as a consequence of exposure to asbestos dust. Neither the clinical features or the architectural tissue abnormalities sufficiently differ to allow confident diagnosis without a history of significant exposure to asbestos dust in the past.”

13. Reliable work histories are said to provide the most practical and useful measure of occupational asbestos exposure.

The Proceedings

14. Proceedings were issued on 13th February 2019. Mr Smith gave evidence on deposition on 15 October 2019. The trial was conducted remotely, via Skype for business, over two days on 16 and 17th June 2020 during the Covid-19 pandemic.

The legal framework

15. The legal framework was agreed. Section 47 of the Factories Act 1937 and section 63 of the Factories Act 1961 apply and required British Rail to take all practicable measures to protect employees against inhalation of substantial quantities of asbestos.
16. The parties were agreed that Mr Smith could be treated as having been exposed to substantial quantities of asbestos dust in the event that the Court determines his exposure met or exceeded the Helsinki criteria. The Defendant

accepts that, if Mr Smith can prove he was exposed to substantial quantities of asbestos dust, it failed to take all practical measures to protect him on those occasions of exposure.

17. The claim was also brought in negligence, but the parties were agreed that the more stringent position under the Factories Act meant this cause of action did not add anything to the claim.

The Evidence

18. There was no live lay evidence at trial. Mr Smith had already given evidence on deposition in October 2019. His daughter did not attend to give live evidence for medical reasons. The evidence of the respiratory experts was agreed. Each party instructed an expert occupational hygienist specialising in asbestos cases: Mr Christopher Chambers on behalf of Mr Smith and Mr Andrew Stelling on behalf of the Defendant (together ‘the Experts’). They produced a joint statement identifying the issues in dispute. I heard evidence from them both. I was also taken to documents from British Rail, academic literature on asbestos exposure and a history of railway carriage repair. I will summarise the evidence presented to me before analysing it as a whole and expressing my conclusions.

Mr Smith’s evidence

19. In his first witness statement, Mr Smith gave evidence that his job at British Rail was “apprentice coachbuilder, involving train carriage furniture restoration and glazing”. He went on to say; “in the end we carried out all repair work on the carriages”. The work included: fixing doors, putting new locks and handles on the doors, changing windows, restoring train furniture, stripping out upholstery and seats and anything else which might have cropped up and required fixing. He remembered work mates fixing ceilings and stripping parts of the train back while he was working underneath and he would get completely covered in blue dust. The bodies of the coaches were made of materials which crumbled when stripped out and he remembered a lot of blue grey dusty powder coming from the ceiling and walls. A typical working day would see the whole day spent in the carriages breathing in the dust except when he was working in the workshops. The materials the men were removing were being moved constantly and the dust was all around. He guessed it was in the air the men breathed.
20. In his second witness statement, he said that there was no ventilation in the carriages other than a window being opened. The blue grey dust was never swept away until the job was finished. When he was first diagnosed with pulmonary fibrosis he was not aware that he had been exposed to asbestos. By a process of elimination, he realised he must have been exposed when he worked for British Rail as this was the only manual work he did during his working career.
21. In cross examination, he said that he would repair the bodywork inside the carriage and anything else that needed repair, whether metal or wooden. The repair work might take a day or it might take a week, depending on the extent of the damage. One member of the gang would do the ceiling work. He might be assisted by another man in the gang, but it was not Mr Smith’s job. He

didn't know what work went on in the ceiling. When asked about stripping activities he said this was not done.

22. A video recording and transcript was produced of his evidence in cross examination.

Mr Smith's daughter

23. Mrs Daniella Demmer said in her witness statement that her father had suffered a stroke in 2001 which affected his speech and memory with the result that it takes him a long time to remember things; his speech is slow and his concentration can be affected. He had not talked about his work at British Rail when she was growing up. She had only known him doing driving jobs so neither she or he could immediately think where he might have been exposed to asbestos when he first got ill. To help him remember his work at British Rail she showed him old maps and photos. Mrs Demmer did not give evidence at trial, on medical advice so was not cross examined.

Mr Smith's medical records

24. I was taken to extracts from Mr Smith's medical records, including a letter dated 8th December 2015 from Dr Biring, a consultant respiratory physician at Guys and St Thomas's Hospital. The letter records Mr Smith as saying he was not aware of any exposure to asbestos during his working career and that he had worked as a carpenter and a glazier on trains.

British Rail documentation

25. Both parties sought to rely on British Rail documentation which post-dated the period of Mr Smith's employment but which was said by both sides to cast light on working arrangements during the period of his employment. In particular: a 1966 memorandum produced by British Rail's medical department titled 'Asbestos hazards in British railway workshops'; a 1972 memorandum titled 'Notes of a Meeting held at Southern House, Croydon, on Monday 5th June 1972 to discuss blue asbestos insulation in Coaches at Regional Repair Depots'; a 1974 memorandum titled 'Blue Asbestos'; and a 1976 memorandum titled 'Blue Asbestos: Protection of Staff in Depots'.

A history of railway workshops

26. The Experts drew on two studies of the history of railway workshops in Britain. They were; 'The railway workshops of Britain 1823 to 1986' published by Edgar J Larkin and John G Larkin and 'An Illustrated history of British Railway Workshops', also by Edgar Larkin. The former book describes the history of railway workshops as a sparsely documented field. It describes itself as an authoritative and well-documented history of the railway workshops in Britain, including the British Rail workshops.

Academic studies of asbestos exposure

27. The trial bundle included a number of academic studies relied on by the Experts, some of which I was taken to during the trial. These included:

‘Asbestos Dust Concentrations in Ship Repairing: A Practical Approach to Improving Asbestos Hygiene in Naval Dockyards’ (PG Harries 1971); ‘Buildings insulated with Sprayed Asbestos: a potential hazard’ ((1971) K.P.S. Lumley, P. G. Harries and F. J. O’Kelly); ‘Extreme airborne asbestos concentrations in a public building’, (1992 Ganor, Fischbein, Brenner, Froom); and ‘Monitoring an asbestos spray process’, ((1975) J.W. Skidmore and J.S.P Jones).

Expert evidence on the cumulative exposure

28. It was common ground that, in broad terms, the total amount of asbestos dust inhaled by a person during a particular period may be calculated by estimating the concentrations of asbestos involved in the work activities by comparing the activities in question with the concentration levels for comparable activities, identified in academic studies. This figure is then multiplied by the total number of hours that such exposure occurred for. The resulting figure is an estimate of cumulative exposure, expressed in fibre years. Given the uncertainties involved, estimates can only be indicative.
29. Both experts produced estimates of Mr Smith’s cumulative exposure. It was common ground that the estimates were based on their own views about Mr Smith’s working conditions.
30. Mr Chambers based his estimate on Mr Smith’s evidence that colleagues carried out stripping work and that the asbestos dust released during the course of the work remained on the carriage floor until the end of the job, where it was regularly disturbed. Mr Chambers drew on an academic study identifying high concentrations of asbestos dust released when sprayed insulation was stripped from aircraft carriers during refit (300+ fibre/cm³) (Harries 1971) and a study identifying mean dust concentrations of around 12.5 fibres/cm³ during the disturbance of asbestos debris (Lumley 1971).
31. Mr Chambers estimated that the mean concentration of asbestos dust produced by the activities Mr Smith described in his evidence would have ranged from 20-100 fibre/ml, depending on the extent to which asbestos dust was exposed during the work. He estimated Mr Smith’s cumulative exposure as between 100-500 fibre years which was well above the threshold in the Helsinki criteria. His estimate was based on Mr Smith spending around 60-70% of his time working on railway carriages for 7-8 years on the basis of a standard working pattern (8 hours a day, 5 days a week, 48 weeks a year).
32. Mr Stelling based his estimate on his view that Mr Smith and colleagues would only have undertaken light repair work because they were based at local depots in Wandsworth and Clapham Junction. There would have been occasional repair work to ceiling panels and consequent exposure to asbestos dust as a result of vandalism. His view was based on the history of railway workshops and the British Rail documents. In his opinion Mr Smith’s work could not be compared with dry stripping activities as Mr Chambers had done. Instead, Mr Stelling relied on the 1971 study by Lumley, also relied on by Mr Chambers. In addition, he relied on a study of asbestos concentrations during clean-up operations following an asbestos spray process which incorporated a pre-dampening stage (Skidmore and Jones (1975)) as well as a study of the fibre concentrations of asbestos in the air in a room with a damaged ceiling which had been sprayed with asbestos (Ganor (1992)).

33. Based on Mr Stelling's view of Mr Smith's work, he considered Mr Smith would have been exposed to asbestos dust in concentrations ranging from 2-25 fibre/ml. The bottom end of the range was based on the disturbance of relatively small areas of damage to the ceilings/walls. The top end of the range was based on the sweeping up of the asbestos debris from the floor of the carriages.
34. Mr Stelling estimated Mr Smith's cumulative exposure on the basis of a maximum average frequency of exposure to asbestos of once a week over a seven year period and a minimum average frequency of exposure of one day a month. The former produced a total exposure dose in the range of 7-14 fibre years whilst the latter produced a total exposure dose in the range of 1.75-3.5 fibre years. Both ranges fall below the Helsinki threshold.

Discussion

The evidence of Mr Smith

35. Mr Smith's evidence was the only first hand evidence about the working conditions in the carriages during his employment. The Defendant did not call any lay witnesses.
36. Mr Smith suffered a stroke in 2001 which affected his speech, memory and concentration. He gave evidence that "I think very slowly and what I'm able to remember I remember slowly and not when I am put on the spot". In her evidence, his daughter explained that it takes him a long time to remember things; his speech is slow, and his concentration can be affected.
37. On watching the video of Mr Smith's evidence on deposition in preparation for trial, his difficulties were easily apparent to me. He found it difficult to talk and had to make hand gestures on occasion to express himself. His sentences were short and staccato like, without accompanying detail:

"Q. When you say you went to Nine Elms, was that while you were an apprentice?"

A. Yes, when I was a kid.

...

Q. How often did you go to Nine Elms?"

A. Well, wherever he says. I didn't bother. If he's going to round the corner, I have to go there. If he's going to anywhere else, we just go to there. I was happy."

38. He said at one point during his evidence "I can't talk properly". At times, he hesitated in giving his answer and appeared to be searching for words he was able to pronounce.
39. He was cross examined and re-examined for approximately 1 hour 17 minutes without a break. At the start of his evidence, Counsel and the Examiner discussed his communication difficulties and it was agreed that Mr Smith's daughter would take the equivalent of an interpreter's affirmation to assist with interpreting Mr Smith's evidence if necessary. As it transpired, her assistance did not prove necessary.
40. At the start of the hearing, I raised with Counsel the issue of how the Court should assess his oral evidence in light of his communication difficulties.

Overnight, Counsel agreed a helpful note setting out relevant case law, in particular the commercial case of *Gestmin SPGS SA v Credit Suisse (UK) Ltd* [2013] EWHC 3560 (Comm) (Leggatt J as he then was at paragraphs 16-22) placed in context by the Court of Appeal in *Kogan v Martin* [2019] EWCA Civ 1645 (per Floyd LJ at paragraphs 88-89). In the context of language difficulties, Counsel pointed me to the observations of Stuart-Smith J in *Arroyo v Equion Energia Ltd (formerly BP Exploration Co (Colombia) Ltd)* [2016] EWHC 1699 (TCC) (paragraphs 250-251). Counsel were agreed that I should approach Mr Smith's evidence with the following in mind:

- a. In assessing oral evidence based on recollection of events which occurred many years ago, the Court must be alive to the unreliability of human memory. Research has shown that memories are fluid and malleable, being constantly rewritten whenever they are retrieved. The process of civil litigation itself subjects the memories of witnesses to powerful biases. The nature of litigation is such that witnesses often have a stake in a particular version of events. Considerable interference with memory is also introduced in civil litigation by the procedure of preparing for trial. In the light of these considerations, the best approach for a judge to adopt in the trial of a commercial case is to place little if any reliance at all on witnesses' recollections of what was said in meetings and conversations, and to base factual findings on inferences drawn from the documentary evidence and known or probable facts (*Gestin* and *Kogan*).
- b. A proper awareness of the fallibility of memory does not relieve judges of the task of making findings of fact based upon all the evidence. Heuristics or mental short cuts are no substitute for this essential judicial function. In particular, where a party's sworn evidence is disbelieved, the court must say why that is; it cannot simply ignore the evidence (*Kogan*).
- c. The task of the Court is always to go on looking for a kernel of truth even if a witness is in some respects unreliable (*Arroyo*).
- d. Exaggeration or even fabrication of parts of a witness' testimony does not exclude the possibility that there is a hard core of acceptable evidence within the body of the testimony (*Arroyo*).
- e. The mere fact that there are inconsistencies or unreliability in parts of a witness' evidence is normal in the Court's experience, which must be taken into account when assessing the evidence as a whole and whether some parts can be accepted as reliable (*Arroyo*).
- f. Wading through a mass of evidence, much of it usually uncorroborated and often coming from witnesses who, for whatever reasons, may be neither reliable nor even truthful, the difficulty of discerning where the truth actually lies, what findings he can properly make, is often one of almost excruciating difficulty yet it is a task which judges are paid to perform to the best of their ability (*Arroyo, citing Re A (a child)* [2011] EWCA Civ 12 at para 20).

41. Mr McLaughlin urged me to treat Mr Smith's evidence with considerable caution. As he put it colloquially in closing; 'every claimant in an asbestos case says there is a lot of dust'. The events under scrutiny took place

approximately 60 years ago. Further, when first diagnosed with pulmonary fibrosis, Mr Smith had been unaware of where he might have been exposed to asbestos. He had identified his work at British Rail after a process of elimination, which amounted to a process of post facto rationalisation.

42. I accept Mr McLaughlin's submissions in this regard. They amounted to an elaboration of the analysis in *Gestmin*. I propose to assess Mr Smith's evidence before turning to consider the extent to which the documentary evidence provides support or otherwise for his account.
43. In assessing Mr Smith's evidence I have watched the video recording of his evidence twice and I have reviewed the transcript a number of times. Given Mr Smith's communication difficulties, the transcript has proved particularly useful.
44. Over the course of his cross-examination Mr Smith provided specific, clear, consistent and unchallenged evidence about his day to day working experience. He was an apprentice. He worked in a gang of 4-5 men. He was the youngest. He went wherever his master, who he could only manage to refer to as 'he', went. He repaired chairs; tables; doors. He and his gang repaired the inside of carriages. They did not do electrical or plumbing work. He himself did not do any repair work to the ceiling. That was done by colleagues. Despite his communication difficulties he was able to convey a sense of his enjoyment of the job:

"I'm happy. I'm... the blue dust, I love it. I don't care, I was happy. You understand it? I was really happy?"

45. Mr Smith gave unchallenged evidence that chunks of blue grey dust would fall from the ceiling during repair work. The dust would cover him and would only be swept up at the end of the job.

"Blue dust I'd understand it, and they're all repair it, all crashes down. I don't care, I'm happy

...

Q. Can you tell me where that came from [blue dust]?

A. I don't know, but... I was happy, I don't care. He got that blue dust, I don't understand it, it didn't care me. We work, work, work. If he dropped down here, I'm leave it there."

46. Mr Smith also gave unchallenged evidence indicating that the length of time for the repair work would vary. It might range from one day to a week:

"Q. So when you were dealing with a carriage then, how long did it take usually for the gang to sort of fix the carriage?

A. maybe in one day we done it. Maybe a week we have to do it. We had to do it.

Q. As I suppose it depended upon how badly damaged it was?

A. That's exactly."

47. Mr McLaughlin submitted that there were material inconsistencies between key aspects of Mr Smith's evidence in chief and his evidence under cross examination. These inconsistencies demonstrated, he said, that 'words had been put into Mr Smith's mouth'. In particular, he challenged the evidence that the carriage ceilings had been stripped. He cited Mr Smith's reference to 'scratches' in the ceiling as evidence that the repair work was only cosmetic. Moreover, he said, Mr Smith's evidence under cross examination was that work to the ceiling was occasional.
48. Mr Butters criticised Mr McLaughlin's submission that words had been put into Mr Smith's mouth as unfair. The allegation had not been put to Mr Smith, thus depriving him of the opportunity to respond. Mr McLaughlin rejected the criticism. He had put his case sufficiently given Mr Smith was a vulnerable man with brain damage. Prior to his questioning, he had been asked by Mr Butters to give due consideration to Mr Smith's health.
49. As matters transpired, I have gained sufficient assistance from a study of the transcript to form a view on Mr Smith's evidence. I turn to assess the specific key areas of evidence criticised by Mr McLaughlin, in accordance with the analysis in *Gestmin*; *Kogan* and *Arroyo*.

Mr Smith's evidence in chief about stripping work

"I do remember work mates fixing ceilings and stripping parts of the train back...while I was fixing a window...

...the bodies of the coaches were made of materials which crumbled when stripped out. I remember a lot of blue/grey dusty powder and everything....

I do not remember if this blue/grey dusty powder came from anywhere else other than the ceilings and being stripped out"

Extracts from cross examination on stripping

"Q. you have talked in your statements about stripping.

A. Stripping?

Q. Do you know anything about stripping?

A. No

Q. Did you do any stripping?

A. No

Q. Did anyone else that you knew do any stripping?

A. No

Q. So all the gang did is you repaired things in the garage?

A. We had to repair it."

Evidence in cross examination about 'scratches' to the ceiling

“Q. If the ceiling was not damaged would it be repaired or... ”

A. If he was... if it was scratching or what he done, he had to repair it.

Q. If it was scratched?

A. Yes

Q. Can you tell me how high the ceiling was on the carriages? Could you reach if you were to stand up?

A. No, no.

Q. no you could not reach it?

A. No, get up thing. about so high, just up here and do it.

Q. Do you know how the ceiling used to get scratched?

A. Weren't me.

...

Q. No, obviously. Because it is obviously too high to reach from what you are saying, so do you know what sort of damage there used to be on the ceiling apart from...?

A. No, not me.

Q. Was there any damage to the ceiling apart from scratches?

A. No, nothing to do with me. He has to know, not me.

...

Q. Do you know, would he just repair the bit that was damaged?

A. Yeah, him try to make good.

Q. So he tried to make it look nice?

A. Yes.

....

Q. Bodywork or mechanical damage, that was not done at Wandsworth, either?

A. No, no, no.

Q. So it was just...

A. Inside.

Q... Inside, cosmetic...

A. Yeah.”

50. I accept that there is an obvious inconsistency between Mr Smith's evidence in chief, in which there are repeated references to stripping work and his evidence in cross examination, where he denied that stripping took place. I also accept that, of itself, the word 'scratch' suggests minor repair work.
51. However, the evidence must be considered in context. Mr Smith appeared confused by the reference to the word 'stripping' and I remind myself that he struggles when put on the spot. Mr McLaughlin did not seek to clarify what he meant by the term stripping. He simply repeated the question, although I accept it may be fairly said that Mr Smith ought to be expected to know what was meant by the term given the repeated references in his witness statement. I also bear in mind, stripping assumed a particular significance in the case

because Mr Chambers emphasised it in his expert evidence. Mr Smith's reference to 'scratching' must be considered in the context of his apparent struggle at times to find a word he could pronounce. He made one reference to 'scratching' which Mr McLaughlin then repeated in three further questions before referring to 'cosmetic damage', to which Mr Smith agreed.

52. Of particular significance in assessing this evidence is Mr Smith's repeated insistence that he did not know what work was done to the ceilings as it was not his area of responsibility. His colleague(s) would take down ceiling panels whilst he would be working at floor level. Given this it is not surprising that Mr Smith appeared hesitant and unclear about the nature of the work done to the ceiling. As examples:

"Q. Do you know, would he just repair the bit that was damaged?"

A. Yeah, him try to make good.

Q. so he tried to make it look nice?"

A. Yes.

Q Do you know how he did that?"

A I don't know what he does.

Q. Did he paint it.

A. No, I... no. What we had blue dust.

Q. Yes.

A. And he does up there and repair it and things fallen down. Nothing hurt with me.

Q. When he was repairing the ceiling would he take part of the ceiling down, or not?"

A. If he has to undo it, he has to undo it.

Q. Would he unscrew?"

A. Well, I don't know, I never done it. Always down here, the doors, the windows, anything, I do it.

Q. Yes. So you never took down..."

A. no, nothing to do with me. He done it. And maybe the blue dust on the floor, I don't care.

...

Q. As far as the ceiling is concerned, presumably somebody would only repair it if it was damaged?"

A. He knows, not me.

...

Q. Was there any damage to the ceiling apart from scratches?"

A. no, nothing to do with me. He has to know, not me.

Q. But when you went inside the carriages you could see the ceiling?

A. Not me, we didn't do it. We doing the doors and all that.

...

Q. What did he used to do?

A. Nothing to do with me?

Q. But did you see what he used to do on the ceiling/

A. No, nothing to do with me.

...

A. I don't know what he doing.

...

Q. Would he unscrew it?

A. Well, I don't know, I never done it. Always down here..." (45)

53. The other key area of Mr McLaughlin's challenge was to the frequency of repairs to the ceiling. Mr McLaughlin relied on Mr Smith's reference to 'only a few' in the exchange below, to support his case that the removal of ceiling panels would only have been occasional:

"Q. On most carriages did bits of the ceiling have to be repaired or was that only on a few of them?

A. Only a few?

Q. Yes.

A. If he..... if he is damaged it he has to repair it."

54. Mr Butters submitted that Mr Smith's reference to 'only a few' must be read in the context of the question and Mr Smith should be taken to be saying that only a few carriages in a train had to have ceilings removed. Mr Butters submitted that the better evidence on the frequency of asbestos dust came from Mr Smith's evidence on blue grey dust:

"Q. You have talked about this blue dust?

A. Yeah.

Q. Can you tell me where that came from?

A. I don't know, but... I was happy, I don't care. He got that blue dust, I don't understand it, it didn't care me. We work, work, work. If he dropped down here, I'm leave it there.

Q. Yes.

A. It didn't bother me. It did not bother.

Q But how often did you see it?

A. ...might be take every day down there, you don't bother. He don't bother, he fine. If he need to do it, he has to repair it.

Q. Was it only when they were doing the repairs to the ceiling...

A. Yeah.

Q. you would see this dust?

A. Yeah, yeah, yes.

Q. Did you sweep it up? did anyone sweep it up?

A. No, just leave till the end then we sweep it."

(underlining is the Court's emphasis)

55. In my view Mr Smith's reference to 'only a few' is ambiguous. I do not accept Mr McLaughlin's submission that it can be treated as unequivocal evidence that the ceiling work was occasional. Mr Smith's subsequent reference to 'might be take every day down there' is a clear answer to a clear question (how often did you see it?) and is to be preferred as his evidence as to the frequency of exposure to asbestos dust.

Documentary evidence

56. The documentary evidence consisted of internal British Rail documents and a history of railway repair workshops. Both experts commented extensively on the material in their reports and in the joint statement. Nonetheless, at the start of the trial, Counsel agreed that interpretation of these documents was a matter for the Court. I have however found it helpful to consider the expert commentary in arriving at my own views of the material.

The history of railway workshops

57. In closing submissions, Mr Butters sought to distance himself from his expert's reliance on the history of railway workshops, suggesting that the history was discussed in general terms from 1823-1986, whilst the Court's focus must be on the specific time period of 1956-1963. Whilst this is undoubtedly correct, I have nonetheless found that the literature provides helpful general information which corroborates aspects of Mr Smith's evidence.
58. The chapter on staff training charts the development of training from simply placing an apprentice with a craftsman and hoping he learnt the trade, to a planned system of training. Until 1960, a boy would normally leave school at 14 or 15 and serve an apprenticeship to a particular trade until he was 21. There was said to be a sizeable volume of repetitive and relatively simple work to be carried out on a regular basis in the engineering workshops. This was done by the apprentices. Various chapters address the developments in organisation of repairs. In the 1840s to 1860s there was little of the organisation which began to flourish a hundred years later. By 1962 workshop divisions had been created and repairs standards were centralised.
59. These extracts are consistent with Mr Smith's evidence that he left school at 15 and worked in the workshops until he was 16 whereupon he began his

apprenticeship, working in a small gang and working 1- 2 days a week in workshops.

60. Mr Stelling relied on the distinction drawn in the literature between local repair depots, where Mr Smith worked, and ‘main’ or ‘regional’ depots where ‘heavier’ and more major repair work was undertaken. From this he deduced that the repair work at the local depot done by Mr Smith’s gang would necessarily have been limited to light or cosmetic repairs. In support, Mr Stelling pointed to an explanation of the redesign of coach interiors to include “clip in” components to facilitate day-to-day renewal of damaged components. These were in his view unlikely to give rise to more than occasional exposure to asbestos dust.
61. I accept the distinction drawn in the literature between main depots and local depots. I also accept the proposition that the heaviest repairs were done at the main depots. However, that is not, it seems to me, the end of the matter. Chapter 6 on the repair of locomotives, carriages and wagons states that:

“The second world war greatly disrupted the railway workshops, particularly in respect of vehicle repairs. ... When British Railways came into existence on 1 January 1948 there was still a vast backlog of repairs as a result of the war. ... This was an exceptionally challenging period for the railway workshop engineers who had to cope with the introduction of a complete new range of standard BR steam locomotives, carriages and wagons, as well as ensuring that both the old and new types of stock were maintained to the high standards required.

....

The decision embodied in the 1954 railway modernisation plan to replace all steam motor powered by electric elect and diesel traction made yet another fundamental change.”

62. Mr Smith’s working career with British Rail began in 1956. Whilst the focus of the literature is on the heavier types of repair in the main workshops, it is reasonable to assume that the challenges of the period filtered down to the local depots.
63. There is passing reference in the chapter to carriage repairs and to a ‘wide range of repair classifications to be covered from a light body repair to a heavy repair including a complete re-trim of all the seats’. This is consistent with Mr Smith’s evidence that the jobs could range from a day to a week.
64. Although a reference to locomotives rather than carriages, the chapter records that well into the 20th century locomotives were being stripped, often to the bare frames then reassembled at one position in the shop by a small team of men in some cases one craftsman and his apprentice with only the specialist operations such as the repair of wheel springs boiler and valve gear being carried out in adjacent shops. The chapter also emphasises the high cost of repairs and the need for a quick turnaround to get trains back into action. These references speak to a focus on getting the repair done, whatever it took, in a challenging period for railway repairs. This is consistent with a repeated

theme of Mr Smith's evidence that his gang did whatever was required of them:

"In the end we carried out all repair work on the carriages"

"Anything in there, we repair it"

"Whatever he has to do, he has to do it"

"If he had to do it, he had to do it"

"If it was damaged I would repair it"

65. I remind myself of the lack of awareness of the dangers of asbestos during Mr Smith's working career which may be a reason why repair work was not as delineated as Mr Stelling sought to suggest. There were no health and safety reasons to isolate the asbestos work as subsequently happened.

British Rail documentation

66. The British Rail memos date from 1966, 1972, 1974 and 1976 and are specific to British Rail operations. They throw helpful light on the work undertaken during the period of Mr Smith's employment, albeit that they post-date it.
67. The 1966 memorandum produced by British Rail's medical department is titled "Asbestos hazards in British Railway workshops." It is a report on the Wolverton works 'where the quantity of repair work producing an asbestos hazard is high'. The note appears to have been produced following a threatened stoppage by workers concerned about the risks of asbestos. The note states as follows:

"...the types of work involving handling of asbestos may be broadly considered thus-

2.1 Work inside coaches-mainly removal of panelling for various reasons and the clearance of the underlying asbestos enabling plumbing and electrical repairs etc to be done.

2.2 Work outside coaches – this consists of the cutting away of the outer portions of the metal panels with the subsequent disruption of the asbestos underneath which has to be cleared away before repair work can be commenced."

68. Mr Butters placed emphasis on the reference to the removal of ceiling panels as presenting a risk of asbestos. It demonstrated, he said, that the removal of the panelling by Mr Smith's colleagues would have exposed him to asbestos dust. The note is however ambiguously worded. It can either be read as a statement that any removal of panelling presents a risk of asbestos exposure or as stating that the risk only arises when the underlying asbestos is removed for

electrical or plumbing work. The distinction is material in the present context because Mr Smith gave evidence that his gang did not undertake electrical or plumbing work. However, the later 1976 memorandum indicates that it is the removal of the ceiling panels itself that creates the risk:

“...I will again reiterate the Departmental Policy which is to send all vehicles to Selhurst or Slade Green for removal/sealing of asbestos or removal of internal panels which could release asbestos dust into the atmosphere.

.....

Under no circumstances must any attempt be made to remove asbestos in depots or remove internal panels which could release asbestos dust.”

69. This memorandum is particularly significant because it was sent to the Clapham Junction depot (amongst other depots), where Mr Smith worked for part of his career.
70. In his evidence, Mr Stelling relied on the 1972 memorandum which reports that a meeting was called because *‘the Region carried out collision damage repairs at Slade Green and Selhurst Repair Shop which occasionally involved dealing with coaches which are insulated with blue asbestos and where facilities have not been provided to meet requirements’*. The memo notes that the majority of collision damage repairs involve the removal of inside panels and the stripping of materials. In Mr Stelling’s view this memo supported his position that only occasional collision damage repair work would have exposed Mr Smith to asbestos.
71. I am of the view however that, taken collectively, the repeated and urgent emphasis in the memos on the special measures required for removal of the panels support a finding that removal occurred more frequently:

“Where it is necessary to remove asbestos or for example ceiling panels where large quantities of dust is released, this work will be confined to Slade Green and Selhurst where the necessary facilities are available. These depots will also provide a service in the event of vehicles damaged in collisions and insulated with asbestos where it is necessary for the vehicles to be broken up on site.”

(1974 memorandum)

“My attention has been drawn to an incident in an inspection shed recently when blue asbestos was disturbed and the Scientific Services and Medical Department were called in, as a result of which requests have been made for a considerable amount of additional equipment.

There have been numerous ‘teach ins’ to ensure all Management, Supervisors and many of the Shop Staff

are aware of the hazards of blue asbestos and the precautions to be taken to ensure the safety of the staff working in the depot and it is disturbing to learn that in this case neither the statutory regulations nor Departmental Policy were complied with.

To ensure there is no dubiety in future, I will again reiterate the Departmental Policy which is to send all vehicles to Selhurst or Slade Green for removal/sealing of asbestos or removal of internal panels which could release asbestos dust into the atmosphere....”

(1976 memorandum).

Findings

72. Drawing the evidence and my analysis together, I have come to the following findings and conclusions.
73. Mr Smith’s stroke meant that he was considerably hindered in his ability to communicate before the Court. Nonetheless, he gave clear and consistent evidence on a number of aspects of his day to day working career, which are consistent with the history of the period. Once due allowance is made for his communication difficulties I am not persuaded that there were material inconsistencies in his evidence. I consider him to be an honest witness.
74. Mr Smith gave unchallenged evidence that a colleague would remove ceiling panels to do repair work. The ceiling panels would release blue asbestos dust which fell onto Mr Smith and the floor. It would remain on the floor until it was swept up after the job was done. It would be disturbed by the men as they moved about the carriage in the course of their work. His evidence is supported by the known fact that a considerable number of the train coaches built between 1951 and 1967 used blue asbestos for body insulation.
75. In light of the British Rail memos emphasising the need for protective measures for the removal of ceiling panels, I find that the removal of the panels exposed Mr Smith to the risk of asbestos dust.
76. Mr Smith gave evidence that he was exposed to asbestos dust on a regular basis. I find support for this in his unchallenged evidence that his gang were expected to do a range of repair work; from the history of the period as a challenging one for railway repairs; and in the repeated emphasis in the British Rail documentation about the need for protective measures for removal of ceiling panels.

Cumulative exposure

77. Given my findings, I can take the expert evidence on cumulative exposure shortly.
78. By the end of the trial there was broad agreement between the experts that the divergence in their estimations of Mr Smith’s exposure to asbestos dust was due to their differing views as to the factual reality of Mr Smith’s working life.
79. Mr Chambers estimated that the mean concentration of asbestos dust produced by the activities described by Mr Smith in his evidence was in the range of 20-100 fibres/ml. In response to questions from the Court, Mr Stelling accepted

that this was a reasonable assessment if the Court were to accept Mr Smith's evidence.

80. Mr Chambers also calculated that Mr Smith would have to be exposed to concentrations of asbestos dust of 20 fibre/ml for approximately 7 hours a week during a 7 year career with British Rail in order for his total exposure to exceed the Helsinki threshold of 25 fibre years. At higher concentrations of 100 fibre/ml, Mr Smith would need to be exposed for 1 hour 26 minutes a week in order for his total exposure to exceed the Helsinki threshold. Mr Stelling did not dispute the mathematics of this analysis.
81. Both parties accepted that I was not in a position to adjust the calculations in light of facts that emerged during trial, including the fact that Mr Smith worked for British Rail for 6 years, not 7 years, which affects the experts' estimates of cumulative exposure. Both sides were accordingly content for me to make broad findings about cumulative exposure.
82. In light of the agreement between the experts as detailed above and the findings of fact I have made, I am satisfied that Mr Smith would have been exposed to concentrations of asbestos dust in the range of 20 – 100 fibre/ml on a regular basis. I am therefore satisfied on the balance of probabilities, that his total exposure would have exceeded the Helsinki threshold of 25 fibre years.

Conclusion

83. For the reasons given above, the claim succeeds.